MAJA MIHAJLOVIC reports on Sunderland City Council's ambitious plans for a colliery spoil heap

If you walk out of Hetton le Hole on the south side and turn onto the footpath to Easington you skirt a small lake on your right and find yourself walking through a smooth green landscape which stretches into the distance, rising and falling gently, covered in fresh young grass. Not so long ago this was the site of the Elemore colliery spoil heap, a secondary five-year—high hog's back type formation which has dominated the local landscape for nearly 30 years since the mine was closed down in 1960. Over the years the spoil has become covered in scrubby grass and shrubs giving the broken land some dignity as nature slowly took it over again, but it has had the bleak look of wasteland for so long now that its regeneration is likely to be welcome.

The transformation is due to ambitious plans by Sunderland City Council to reclaim such land left derelict by the activities of the mineral extraction industries and give it a new lease of life by officially restoring it to public use, although at Elemore local people and dog-owners have used the network of footpaths heavily for years. The City bought the land from British Coal in 1990 and since then, while the initial job of clearing the colliery buildings was going ahead, has put together various studies and policy documents analysing the potential of the site. The intention was, broadly speaking, to provide "opportunities for countryside recreation facilities... within a woodland setting".

A golfing facility was always a popular option for the site which covers 55 hectares. As has been well publicised, golf has seen a dramatic increase in the numbers of people playing the game or wanting to take it up in the last five or ten years. As its image has gradually changed, its appeal has broadened considerably so that it is no longer the exclusive preserve of the higher income groups and we are seeing more women and juniors playing than ever before. These are factors that have put great strain on the recreational facilities of local authorities such as those within Tyne and Wear where the demand-to-supply ratio is more overbalanced than in surrounding areas. A local paper, The Evening Chronicle, published a survey showing most private golf clubs to have waiting lists that are either closed or between two and ten years long with subscription fees that cash in on the popularity of the sport. The article tells of the serious wear and tear on the overburdened municipal courses which see golfers queuing from the small hours at the weekends just to get a starting time. Moreover, research done by the Northern Council for Sport and Recreation showed that the priority area for new golf courses in the North East was Tyne and Wear, and Sunderland in particular which, to bridge the gap, was calculated to need eight new (9-hole) courses and additional year-round practice facilities.

There were other factors which made the choice of a golf course for the site the right one. The option of turning the land over to agriculture was inappropriate given the government's policies of taking agricultural land out of productive use. So-called "hard uses", further industrial or residential development, had been ruled out in line with a general increase in awareness of the value of urban fringe land. But as the site fell within the boundary of the pro-
posed Great North Forest the perfect choice was to combine a new area of woodland with a variety of recreational activities, golf being one of the main amenities to be provided for.

The Great North Forest is one of the country's leading environmental initiatives, a partnership of several bodies and organisations including The Countryside Commission and Forestry Commission, Sunderland City Council and other local borough and district councils.

Now two years old, the venture has already achieved the planting of the first 100 hectares of trees and wild flowers and has managed to raise awareness of the project by actively involving schools and community groups in their substantial events programme. Being committed to this project, and with the cost of tree planting adequately covered by Forestry Commission grants and the Government's Derelict Land Grant, the council has allowed for 13 of the Elemore site's 55 hectares to be planted with trees. Integrated with the planting will be a network of footpaths and bridleways providing important links with already established long distance walks.

The combination of benefits in providing a golf course on the site - the improvement of the environment alongside the provision of much needed mixed recreational facilities - was reinforced by the financial facts of undertaking the work: Central Government provides a 100% grant for reclamation works; tree-planting grants were assured; they have applied for a grant from the Sports Council for golf course design.

A year ago last January, work started on the major job of regrading the spoil heap to create a new landscape.

One pressing reason for getting the works underway as soon as possible was that with each bout of heavy rain some of the houses on the south side of Hetton bordering the site were flooded due to the great amounts of run-off from the spoil heap. The flooding is an indication of just one of the particular problems very specific to the reclamation of colliery sites, namely the nature of the material, coal shale. It is a very dense material, impermeable and subject to compaction and therefore has a low water holding capacity. During the large scale reclamation works, heavy machinery can exert over 70lbs of pressure per square inch causing a surface density higher than that of an asphalt road. On top of this, the compaction extends beyond which grass roots will not grow and is easily reached under the wheels of a box scraper.

Another problem was caused by large amounts of dust created by the movement of materials during spells of dry weather which upset local residents of the housing estates adjoining the site. To counteract this as far as possible water bowsers were used but it was difficult to eliminate the annoyance altogether.

At the planning stage, careful consideration was also given to the areas chosen for spreading the burning materials and the position of the balancing pond as part of the site as an area of nature conservation interest. The Nature Conservancy Council identified three areas adjoining a small stream on the western side of the heap which are particularly noted for acid grassland with gorse and hawthorn scrub which represen the best and largest example of a rare habitat within the County of Tyne and Wear and this area has been carefully incorporated into the golf course design.

A year ago last January, work started on the major job of regrading the spoil heap to create a new landscape.

October 1990, pre-construction: a view looking north over Hetton from top of shale heap. Part of the heap is still visible on the left.

Below: work in progress showing red and black shales in heap and stored topsoil pile in background
More than

A good bunker is not a simple hole in the ground. If a bunker is to perform well in play, careful pre-planning and construction is essential: covering location; orientation; size; style; angle of face, cross sectional profile and provision for free drainage. However, before getting into any technical detail in planning, everyone has to ask a simple question - is any new bunker necessary or valid? Bunkers are expensive to build (a contract price in 1992 is likely to be £750 to £1000 each, plus sand), are time-consuming to maintain and are not vital to every golf course or every hole on a golf course. There are still a few good courses with no bunkers at all!

If though, after deep and careful thought, the decision is made to proceed to the next step, then consideration has to be made of exact location, orientation, size and style. Of the first three items much will depend upon how it is intended to control the strategy of play, and which group of players the bunker is intended to penalise.

There are management considerations to be accounted for too, especially how the new bunker will affect the flow of play through the green. Many a new bunker has been spoiled by a track of bare ground around, due to funnelling of play. Orientation will also have an influence on whether or not grass can be grown on the face of the bunker. This is often difficult if the face is steep and exposed to a southerly aspect.

Turning to style, there are lots of different ways in which to build a bunker, but methods tend to tie in with the special management problems of different types of golf course. At the seaside, bunkers tend to be deep and fairly narrow to help keep the sand in, though hopefully not so deep that the water table is exposed for long periods each winter.

---

**ORDER FORM – BINDERS**

Please send me __________ Greenkeeper International binder(s) at £5.95 each including postage/packing (UK price; £7.95 Europe), or:

☐ I want to take advantage of the Special Introductory Offer and buy two binders for just £10.90, including P+P (UK price; £14.90 Europe)

Name: ____________________________

Address: ____________________________

Please make cheques payable to BIGGA. Clip this coupon and post to: Binders Offer, BIGGA, Aldwark Manor, Aldwark, Aine, York Y06 2NF.

Allow 28 days for delivery. Copy this information on a plain sheet of paper if you don't want to cut up your magazine.

---

**GREENKEEPER INTERNATIONAL BINDERS**

Now you can keep your copies of the industry's premier magazine in perfect condition - all the time!

It might have been a problem looking after your copies of Greenkeeper International before now...

...But not any longer!

Keep your copies safe, and the vital information always immediately to hand, with our new, exclusive Greenkeeper International binders.

Stylish, hardwearing and convenient, the binders are supplied in a smart green colour with the magazine's name style and the BIGGA logo on the spine. Each binder will hold a year's issues of Greenkeeper International and comes with a useful index card in its own plastic pocket, for you to personalise as a quick reference guide.

And to get you started, we're offering the chance to save £1 if you buy two binders - just what you need to hold all the 1991 editions and the eight months (so far) of 1992's magazines.

Say goodbye to dog-eared magazines - order your binders today!

---

**REMOVING THE SCAR**

... - pegging - which is the action of cutting drainage channels diagonally across contours - followed by the application of a 250mm layer of ground dolomitic limestone. The ripping process relieves compaction and aids the incorporation of the neutralising limestone. Deep incorporation also increases the permeability of the spoil, aiding drainage and encouraging the salts to be leached out of the soil. On top of the limestone was spread a sealing layer of clay subsoil spread in a layer at 250mm deep and fairly narrow to help keep the salts in, though hopefully not so deep that the water table is exposed for long periods each winter.

---

The author, Maja Mihajlovic, is a freelance journalist with a special interest in golf course architecture.